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BEFORE THE ARIZONA CORPORATION COMMISSION

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Docket No. RE-00000A-07-0608

IN THE MATTER OF THE
PROPOSED NET METERING
RULES FOR THE PROPOSED
RULEMAKING ON NET
METERING

ARIZONA PUBLIC SERVICE COMPANY'S
COMMENTS TO REVISED DRAFT OF
PROPOSED NET METERING RULES

Arizona Public Service Company ("APS" or the "Company") hereby submits its comments to the Arizona Corporation Commission (the "Commission" or "ACC") to Staff's Revised Draft of Proposed Net Metering Rules ("Proposed Net Metering Rules").

I. Introduction

On January 4, 2008, APS filed Comments in response to Staff's Request for Written Comments to Proposed Net Metering Rules. On February 1, 2008, Staff revised the Proposed Net Metering Rules, incorporating many of the comments of the interested parties.

APS continues to support a net metering program, if designed properly, which encourages distributed generation and fully reflects the costs to provide service and avoids subsidization from other customers. Because the Proposed Net Metering Rules should be designed and developed to promote renewable resources, APS still has concerns that the definition of Combine Heat and Power ("CHP") as proposed, has the unintended consequence of including non-renewable fueled systems in the net metering program, which would be contrary to the specific purpose and intent of the Net Metering Rules. In addition, Staff has struck the defined term "Parallel Operation" from A.A.C. R14-2-1802(N) which recognized that interconnection of a net metering facility would be limited to the utility's distribution system. As revised, the Proposed Net Metering Rules would also allow interconnection to a utility's transmission system, or non-jurisdictional

1 facilities. The Proposed Net Metering Rules should be limited in scope to include only
2 those facilities that are ACC jurisdictional.

3 APS has concerns that by allowing facilities to be sized up to 125% of the expected
4 peak demand would cause the utility to incur unnecessary expenses to increase the
5 capacity of its local distribution system to allow generation output to the utility grid
6 during customer low load periods. The Company also believes that unless expressly
7 stated that the interconnection requirements for each utility could be interpreted not be
8 applicable under this rule as a result of the deletion of R14-2-2303 C. Therefore the
9 Company requests that such provision be reinserted. The incremental increase in costs for
10 the upgraded meter associated with the Net Metering program should be bourn by the
11 customers participating therein. APS recommends that the provision that allowed for a
12 one time charge or increased customer charge be reinserted into the Proposed Net
13 Metering Rules.

14 **II. Net Metering Rules**

15 A.A.C. R14-2-2302(D)

16 APS continues to recommend that the Commission adopt the REST definition set
17 forth in Arizona Administrative Code ("A.A.C"). R14-2-1802(B)(5) which would
18 specifically limit CHP to renewable resources. In addition, APS continues to recommend
19 that the Commission require that all CHP systems, not only be limited to renewable
20 resources in order to promote renewable energy systems, but such systems should also be
21 required to meet all PURPA efficiency and effective utilization of heat production
22 standards for a Qualifying facility certification.

23 A.A.C. R14-2-2302(N)

24 Staff has struck the defined term "Parallel Operation" from A.A.C. R14-2-1802(N)
25 which recognized that interconnection of a net metering facility would be limited to the
26 utility's distribution system. The Proposed Net Metering Rules should be limited in
27 scope to include only those facilities that are ACC jurisdictional.
28

1 A.A.C. R14-2-2303

2 As set forth above, APS has concerns regarding the requirement that the
3 Generating Capacity be up to 125 percent of the customer's peak demand. Although APS
4 designs its distribution facilities to serve the customers expected peak demand, customers
5 expected peak demand (load) can be 50% or less than the customers total connected load.
6 To allow sizing of a generating facility at up to 125% of the peak demand would require
7 the utility to increase the capacity of the local distribution system to allow the generation
8 output to flow to the utility grid during customer low load periods. It is more appropriate
9 to limit customer's generation to no more than 100% of the customer's expected peak
10 demand. This would allow sizing of the local distribution system to be consistent
11 regardless of whether or not the customer had a generating facility. To do otherwise could
12 require additional distribution investment to interconnect with the customer. In addition,
13 interconnection must be in compliance with the utility interconnection requirements and
14 associated agreements.

15 A.A.C. R14-2-2304(B)

16 Although APS agrees with Staff that a bi-directional meter is the appropriate
17 equipment to measure customer usage and generation, the utility should be permitted to
18 include within its tariff either a one-time meter charge or an increased monthly customer
19 charge to cover the incremental metering cost to the extent not collected through the
20 REST. The first draft included a provision for a one time charge or an increased customer
21 charge to pay for the bi-directional meter under A.A.C. R14-2-2304(C). That provision
22 was inexplicably deleted from the Proposed Net Metering Rules and should be reinstated
23 as customers participating in the net metering program should be required to pay for
24 incremental meter costs.


25 A.A.C. R14-2-2307(C)


26 In addition, the Company believes it is just as important for avoided cost purchase
27 rates from Net Metering Customers to consider time-of-day as A.A.C. R 14-2-2307(C)
28

1 currently recommends for seasonal variations. Variations in avoided cost can change
2 significantly during different hours of a day as they can by season, therefore the Company
3 recommends the inclusion of the terms "and time of day" after season.

4 RESPECTFULLY submitted this 2 day of February, 2008.

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Proposed Net Metering Rules

ARTICLE 23.

NET METERING

R14-2-2301.	Applicability
R14-2-2302.	Definitions
R14-2-2303.	Requirements and Eligibility
R14-2-2304.	Metering
R14-2-2305.	New or Additional Charges
R14-2-2306.	Billing for Net Metering
R14-2-2307.	Net Metering Tariff
R14-2-2308.	Filing and Reporting Requirements

R14-2-2301. Applicability

These Rules govern the treatment of Electric Utility Customers in Arizona who operate a Net Metering Facility and wish to interconnect with the Electric Utility which serves them and engage in Net Metering operation as defined below. These Rules apply to all Electric Utilities, as defined in these Rules.

R14-2-2302. Definitions

For purposes of this Article, the following definitions apply unless the context requires otherwise:

- A. "Avoided Costs" means the incremental costs to an Electric Utility for electric energy or capacity or both which, but for the purchase from the net metering facility, such utility would generate itself or purchase from another source.
- B. "Biomass" means any raw or processed plant-derived organic matter available on a renewable basis, including dedicated energy crops and trees; agricultural food and feed crops; agricultural crop wastes and residues; wood wastes and residues, including landscape waste, right of way tree trimmings, or small diameter forest thinnings that are 12 inch in diameter or less; dead and downed forest products; aquatic plants; animal wastes; other vegetative waste materials; non-hazardous plant matter waste material that is segregated from other waste; forest related resources such as harvesting and mill residue, pre-commercial thinnings, slash and brush; miscellaneous waste, such as waste pellets, crates and dunnage; or recycled paper fibers that are no longer suitable for recycled paper production, but not including painted, treated or pressurized wood, wood contaminated with plastics or metals, tires or recyclable post-consumer waste paper.
- C. "Biogas" means gases that are derived from plant-derived organic matter, agricultural food and feed matter, wood wastes, aquatic plants, animal wastes, vegetative wastes or waste water treatment facilities using anaerobic digestion or from municipal solid waste through a digester process, an oxidation process or other gasification process.

~~E~~.D. "Commission" means the Arizona Corporation Commission.

~~F~~.E. "Electric Utility" or "Utility" means an electric distribution company that constructs, operates,

and maintains the electrical distribution system for the receipt and/or delivery of power.

G.F. "Electric Utility Customer" or "Customer" means an end-use retail Customer served under a Utility's rate schedule.

H.G. "Fuel Cell" means a device that converts the chemical energy of a fuel directly into electricity without intermediate combustion or thermal cycles. For purposes of these Net Metering rules, the source of the chemical reaction must be derived from Renewable Resources.

I.H. "Geothermal" means heat from within the earth's surface.

J.I. "Hydroelectric" means the kinetic energy derived from moving water.

K.J. "Net Metering" means service to an Electric Utility Customer under which electric energy generated by that Electric Utility Customer from a Net Metering Facility and delivered to the Utility's local distribution facilities may be used to offset electric energy provided by the Electric Utility to the Electric Utility Customer during the applicable billing period.

L.K. "Net Metering Customer" means any Arizona Customer who chooses to take electric service in the manner described in the definition of Net Metering above, and under the Net Metering tariff, as described in R14-2-2307.

M.L. "Net Metering Facility" means a facility for the production of electricity that:

1. Is operated by a Net Metering Customer and is located on the Net Metering Customer's premises.
2. Is intended primarily to provide part or all of the Net Metering Customer's requirements for electricity;
3. Uses Renewable Resources, a Fuel Cell, or CHP to generate electricity;
4. Has a generating capacity less than or equal to ~~125%~~100% of the Net Metering Customer's expected peak demand; and
5. Can operate in electrical parallel and ~~in phase~~interconnected with an Electric Utility's existing ~~transmission and distribution~~ system.

M. "Parallel Operation" means the operation of a customer's on-site generation that is electrically interconnected to a bus common with the Electric Utility's distribution system.

N. "RCHP" or "Renewable Combined Heat and Power" (also known as cogeneration) means a distributed generation system, fueled by an eligible Renewable Energy Resource, that produces both electricity and useful process heat. Qualifying RCHP systems shall meet all PURPA efficiency and effective utilization of heat production standards for a Qualifying Facility certification.

N.O. "Renewable Resources" means natural resources that can be replenished rapidly by natural processes. Renewable Resources include Biogas, Biomass, Geothermal, Hydroelectric, Solar, or Wind.

O.P. "Solar" means solar radiation of the Earth's Sun that produces electricity from a device or system designed for that purpose.

P.Q. "Wind" means energy derived from wind movement across the Earth's surface that produces electricity from a device or system designed for that purpose.

R14-2-2303. Requirements and Eligibility

- A. An Electric Utility shall interconnect with any retail Customer who operates a Net Metering Facility in the Electric Utility's service territory.
- B. Facilities with a generating capability greater than ~~125%~~100% of the customer's on-site expected peak demand shall require a special contract between the Utility and the Customer for Net Metering service.
- C. Interconnection must be in accordance with the utility interconnection requirements and associated supply/purchase agreements.

R14-2-2304. Metering

- A. If the meter that is currently installed on the Net Metering Facility is incapable of registering and accumulating the kilowatt-hours ("kWh") of electricity flowing in both directions in each billing period, a bi-directional meter with that capability shall be installed by the Electric Utility to record the kWh of electricity in both directions.
- B. The Utility's Net Metering tariff may include a one-time charge or an increased Customer charge to cover the incremental increase in meter costs.

R14-2-2305. New or Additional Charges

- A. Any proposed charge that would increase a Net Metering Customer's costs beyond those of other customers in the same rate class shall be filed by the Electric Utility with the Commission for approval. The filings shall be supported with cost of service studies and benefit/cost analyses.
- B. Net Metering costs shall be assessed on a nondiscriminatory basis with respect to other customers with similar ~~load~~ service characteristics.

R14-2-2306. Billing for Net Metering

- A. On a monthly basis, the Net Metering Customer shall be billed or credited based upon the rates applicable under the Customer's currently effective standard rate schedule and any appropriate rider schedules.
- B. The billing period for net metering will be the same as the billing period under the Customer's applicable standard rate schedule.
- C. With Net Metering, only the kWh units of a customer's bill are affected by the energy credits described in R14-2-2306(E); i.e., not kW demand charges or customer charges.
- D. If the kWh supplied by the Electric Utility exceed the kWh that are generated by the Net Metering Facility and delivered back to the Electric Utility during the Billing Period, the Customer shall be billed for the net kWh supplied by the Electric Utility in accordance with the rates and charges under the Customer's standard rate schedule.
- E. If the electricity generated by the Net Metering Customer exceeds the electricity supplied by the Electric Utility in the Billing Period, the Customer shall be credited during the next Billing Period for the excess kWh generated. That is, the excess kWh during the Billing Period will be used to reduce the kWh supplied and billed by the Electric Utility during the following Billing Period.
- F. Customers taking service under time-of-use rates who are to receive credit in a subsequent Billing Period for excess kWh generated shall receive such credit during the next Billing Period during the on- or off-peak periods corresponding to the on- or off-peak periods in which

the kWh were generated by the Customer.

- G. Once each calendar year the Electric Utility shall issue a check or billing credit to the Net Metering Customer for the balance of any credit due in excess of amounts owed by the Customer to the Electric Utility. The payment for any remaining credits shall be at the Electric Utility's Avoided Cost. That Avoided Cost shall be clearly identified in the Electric Utility's Net Metering tariff

RI4-2-2307. Net Metering Tariff

- A. Each Electric Utility shall file, for approval by the Commission, a Net Metering tariff within 90 days from the effective date of these rules, including financial information and supporting data sufficient to allow the Commission to determine the Electric Utility's fair value for the purposes of evaluating any specific proposed charges. The Commission shall issue a decision on these filings within 120 days.
- B. The Net Metering tariff shall specify standard rates for annual purchases of remaining credits from Net Metering Facilities and may specify capacity limits. If capacity limits are included in the Tariff, either for individual projects or in total, such limits must be fully justified using appropriate loads and resource data.
- C. Electric utilities may include seasonally and time of day differentiated avoided cost rates for purchases from Net Metering Customers, to the extent that Avoided Costs vary by season and time of day.

RI4-2-2308. Filing and Reporting Requirements

- A. Prior to May 1 of each year, each Electric Utility shall file a report listing all existing Net Metering Facilities and the inverter power rating or generator rating as of the end of the previous calendar year.
- B. Also included in this report shall be, for each existing Net Metering Facility, the monthly peak demand delivered to and from the Electric Utility and the monthly amount of energy delivered to and from the Utility.